

**Notice of Allowability**

Application No.

09/929,716

Examiner

Freshteh N. Aghdam

Applicant(s)

ROUPHAEL, ANTOINE J.

Art Unit

2611

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after final amendment filed 9/18/2007.
2. ☒ The allowed claim(s) is/are 3-5 and 7-11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|  | 9. <input type="checkbox"/> Other _____  |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Johnson on 10/11/2007.

On page 8, renumber dependent claim 7 as claim 8.

On page 8, renumber dependent claim 8 as claim 9.

On page 8, renumber independent claim 9 as claim 10.

On page 9, renumber dependent claim 10 as claim 11.

On page 8, change the dependency of the renumbered claim 8 from 8 to 7.

As to independent claim 7, replace claim 7 with the following claim:

A telecommunications device, comprising:

a coder adapted to encode data; an RF modulator; and a shaping filter adapted to shape said encoded data, the shaping filter specified by constraining filter coefficients in their adaptation at optimal sampling points and not constraining said filter coefficients at points other than optimal sampling points, an initial shaping filter comprising a channel noise filter and intersymbol interference shaping filter, said intersymbol interference

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shaping filter adapted to minimize intersymbol interference, said initial shaping filter based upon a convolution between a signal associated with said shaping filter and a corresponding signal associated with a matched filter of said shaping filter.

As to **renumbered** independent claim 10, replace claim 10 with the following claim:

A method, comprising:  
specifying an initial filter; first convolving a signal associated with said initial filter with a corresponding signal associated with a matched filter of said initial filter to obtain a specification of an initial shaping filter; second convolving said signal associated with said initial filter with a noise data sequence, said noise data sequence comprising a channel noise and intersymbol interference model; deriving, responsive to said first convolving and second convolving, a specification of a shaping filter by minimizing an error metric at points on said signal associated with said initial filter corresponding to an upsampling period, the upsampling period comprising optimal sampling points other than every sampling point; and configuring a transmit filter of a radio frequency communications system with coefficients based upon said specification of said shaping filter.

***Allowable Subject Matter***

Claims 3-5 and 7-11 are allowed. The following is an examiner's statement of reasons for allowance:

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As to claims 3-5 and 7-11, the prior art of record fails to teach obtaining an initial shaping filter from convolving a specified initial filter with its matched counterpart in conjunction with the rest of the claimed limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is 571-272-6037. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Freshteh Aghdam  
Examiner  
Art Unit 2611

October 12, 2007

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER